

# Troubleshooting Guide: Common Problems and Their Possible Solutions

It is possible that users may discover a “bug” in the ODA software. As any bugs are reported vis-à-vis the Web site ([www.apa.org/books/resources/yarnoldsoltysik](http://www.apa.org/books/resources/yarnoldsoltysik)), of course, they will be fixed and registered users will receive announcements regarding availability of updated software.

One problem reported recently is not a bug, but rather is an error in the instructions for using ODA. The first printing of the book omitted a directory name in Figure 2.6 (p. 42) that made the ODA examples fail. The correct path to run ODA in the PFE Command Box is not “c:\ODA\oda.exe%p”, but rather “c:\ODA\PROGRAM\oda.exe %p”. The reason for this error is that (a) the CD includes a root directory containing the file “Command List.pdf” along with a folder named “Program”; and (b) the “Program” folder within the ODA directory contains two files (oda.exe and readme.txt) along with two other folders (PFE and Examples). Thus, the executable file for ODA (i.e., oda.exe) is contained within the ODA directory, but is actually within the Programs folder within the ODA directory. The simple fix mentioned above will correct this.

As we have found from our own personal experiences, when using ODA software there are a number of easy-to-make oversights that, while easily corrected, may at first induce a curious composite of enraged befuddled melancholy in both novice and experienced users. Before becoming convinced that the software is fraught with programming errors, however, it is important to check that it is indeed being used properly. Accordingly, we have tabulated the most common errors that we have committed when using this software to analyze data, and most of these errors were eventually eliminated by systematically considering the issues listed below in the context of the troublesome analyses. Thus, we recommend that users systematically assess whether any of the following oversights might be at the root of their troublesome analysis before they seek outside consulting from the Web site.

- ◆ Did you want to use the command prompt and can't find it? Click Start and Run, and command.com in Windows 98 and ME, or cmd.exe in Windows NT, 2000, or XP.
- ◆ Are you in command prompt mode and your script file name prefix is longer than 8 characters? If you are running Windows 2000 or XP, enclose the file name in quotes. Try renaming it to a shorter name in Windows 98 and ME.
- ◆ Does the system not find the ODA program? Prefix the ODA command with the path where it is located (e.g., c:\oda\program\oda.exe *filename*).

- ◆ Did the ODA program terminate and return to the c: prompt, failing to execute the analysis? If so, open the file you specified in the OUTPUT command (or the oda.out) file with PFE, or the editor of your choice, and check for error messages.
- ◆ Did you misspell any ODA commands, omit any required spaces or periods, or insert any additional characters such as equal signs? If the answer is yes, then spell or specify the command(s) correctly.
- ◆ Does your data file (including a HOLDOUT file, if applicable) contain any missing data that you failed to identify using the MISSING command? If the answer is yes, then use the MISSING command to identify all values that you employed to signify missing data.
- ◆ Did you forget to specify the command CATEGORICAL ON for a categorical problem? If the answer is yes, then include the CATEGORICAL ON command.
- ◆ Did you misspecify the DIRECTIONAL command? Remember that this command refers to the class variable, and not to the attribute. Also, recall that if tabular input was used, ODA dummy-codes the first row (and column) as 1, the second row (and column) as 2, and the tenth (maximum allowable) row (and column) as 10. In order to determine if your directional command is the problem, try omitting it (and only it) from your program and re-running it. If the program works without the directional command, then the directional command is likely to be the problem.
- ◆ Is your sample size too large for ODA to analyze? The largest sample size allowable is 65,535 observations. One recourse in this situation is to randomly segment the total sample into smaller samples, and use these as hold-out samples.
- ◆ After all this, is the system still acting “crazy,” and failing to run the analyses that you are apparently specifying correctly? It may be that you overlooked resetting an ODA feature (e.g., CATEGORICAL, DEGEN, INCLUDE, etc.) that was appropriate for another analysis conducted earlier in the same analysis session, but which is inappropriate for the present (problematic) analysis. In order to assess if this is the case, shut down the ODA system, and then try the analysis again from the beginning.
- ◆ One of the most frequently encountered problems is that the data set is missing data points. Make sure to conduct univariate descriptive analysis to ensure data quality and database integrity.
- ◆ Are you waiting for a Monte Carlo or LOO to finish before checking to see if you specified your analysis correctly or successfully fixed a suspected error? Don't wait, hit Ctrl-Break (for CANCEL)! Before investing substantial time (even a few minutes) in an ODA analysis, first make sure that your ODA program is working properly. It's generally a good idea to specify only a few Monte Carlo runs [e.g., ITER (10)] when checking if a program is specified correctly. If, for example, Monte Carlo  $p = 1$  on the basis of these ten runs, then the DIRECTIONAL command might be misspecified,

or you might have overlooked an important data transformation without which the analysis is meaningless.

- ◆ Did ODA fail to find a solution? First, set `DIRECTIONAL` to off and rerun. If a solution still cannot be found, set `DEGEN` to on and rerun. A last recourse might be collecting more data and rerunning analyses.